

REMARKS / DISCUSSION OF ISSUES

Claims 1-17 are pending in the application. Claims 1 and 13 are the independent claims.

The amendments to the claims are made for non-statutory reasons, to delete reference characters provided in the international application.

Rejections under 35 U.S.C. § 102

Claims 1-8 and 11-16 are rejected under 35 U.S.C. § 102(b) as being anticipated by *Nakamura, et al.* (US Patent 5,469,852). For at least the reasons that follow, Applicants respectfully submit that all claims are patentable over the applied art.

1. Rejections fail to comply with established standards of examination

Applicants respectfully submit that the rejection fails to comply with MPEP § 706, which states, in part:

The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity (emphasis added).

The rejection likewise fails to comply with 37 CFR § 1.104(c)(2), which provides:

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference,

if not apparent, must be clearly explained and each
rejected claim specified (emphasis added).

The rejection of 13 claims, claims 1-8 and 11-16, in its entirety states:

Nakamura et al disclose an ultrasound diagnostic probe 15 to be inserted transesophageally into an upper digestive tract. Probe includes housing 50 with seams located at abutting edges of the acoustic window 44 (see Figure 3a) and a transducer array 20 that is divided into a plurality of piezoelectric elements, each emitting ultrasound waves in a plane perpendicular to the surface of the array (col 5, lines 16-36). An acoustic matching layer 38 covers the entire active plane (arranged between conductive parts and seam) of the transducer so as to acoustically influence waves transmitted and received by the transducer in a desired manner. Furthermore, the outer surface of element 34 is molded by epoxy resin, for example, to form a waterproof case 50 (col 6, lines 16-28).

The claims under present examination comprise multiple elements and feature the interrelationships of many of the elements. Respectfully, the Office Action did not and could not provide a clearly articulated rejection in merely 10 lines, with reference made to one drawing Fig., 32 lines of the reference, and 6 reference characters. Stated differently, the Office Action could not and did not cite with clarity and specificity the correlation of each and every feature of 13 claims to their alleged anticipatory features in the applied art. Just as an example, claim 1 features an acoustic matching layer arranged in a housing between electrically conductive parts of a sensor assembly and at least one seam extending from an exterior of the housing to an interior of the housing. Yet, there is no clear articulation of that which the Examiner regards as being 1.) the seam; and 2.) the conductive parts of the sensor. Rather, the Examiner directs Applicants to Fig. 3A for the

alleged disclosure of the seam¹; and does not direct Applicants specifically to anything for the alleged disclosure of the conductive parts.

For at least the reasons set forth above, Applicants respectfully submit that a proper rejection under the Rules of Practice or the MPEP has been provided. Thus, the rejection is improper and claims 1-17 are patentable over the applied art. If the Examiner remains unconvinced that the pending claims are patentable over the applied art, Applicants respectfully submits equity mandates that a subsequent Office Action must be made non-final.

2. The applied art fails to disclose at least one feature of each of independent claims 1 and 13

At the outset Applicants rely at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, a proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Claim 1 is drawn to a an ultrasound probe, comprising:

a housing including at least one seam extending from an exterior of said

¹ There is an O-ring 48 and a sealing 46 between the acoustic lens 40 and the acoustic window 44. This provides a seal between the lens 40 and window 44, with the region therebetween being filled with castor oil. There is no seam as claimed. Moreover, there is no clear identification of such a seam in the Office Action.

housing to an interior of said housing;

a sensor assembly arranged in said housing and including electrically conductive parts, said sensor assembly being arranged to transmit and receive waves; and

an acoustic matching layer arranged in said housing between said electrically conductive parts of said sensor assembly and each of said at least one seam, said acoustic matching layer being arranged to acoustically influence waves transmitted and received by said sensor assembly in a desired manner.

Claim 13 is also drawn to an ultrasound probe. The ultrasound probe comprises:
a housing;

a sensor assembly arranged in said housing and including electrically conductive parts, said sensor assembly being arranged to transmit and receive waves; and

an acoustic matching layer wrapped around said electrically conductive parts to electrically isolate said electrically conductive parts from said housing, said acoustic matching layer being arranged to acoustically influence waves transmitted and received by said sensor assembly in a desired manner.

In an embodiment, the matching layer 34 is disposed between the electrically conductive parts 22 of the sensor assembly 16 and the seam 36. See also Fig. 1 where the acoustic matching layer 34 is wrapped around the electrically conductive parts 22.

The applied art to *Nakamura, et al.* discloses an acoustic matching layer 38, but fails to disclose either the seam as claimed; or the wrapping of the matching layer 38 around conductive elements. At the outset, it is unclear just what components of *Nakamura, et al.* are conductive elements, if any. Moreover, a seam as claimed is not disclosed, but rather an O-ring and a sealing 46 between the acoustic lens 40 and the acoustic window 44. This provides a seal between the lens 40 and window 44, with the region therebetween being filled with castor oil. Finally, the acoustic matching layer 38 is disposed adjacent to a transducer 20, but is most definitely not wrapped around anything, let alone conductive elements as specifically claimed. (Kindly refer to Fig. 3A, column 5, lines 16-36 and column 6, lines 16-28 of *Nakamura, et al.* for additional details.)

In view of the above, Applicants respectfully submit that claims 1 and 13 are patentable over the applied art at least because one feature of each claim is not disclosed in the applied art, thus negating the alleged *prima facie* case of anticipation. Moreover, claims 2-12 and 14-17, which depend from claims 1 and 13 respectively, are also patentable for at least the same reasons and in view of their additionally recited subject matter.

Rejections under 35 U.S.C. § 103

The rejections under this section of the Code have been considered. While Applicants in no way acquiesce to their propriety, because these claims are dependent, they are patentable for at least the same reasons as provided above.

Conclusion

In view of the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any additional fees, including, but not limited to, the fees under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:
Phillips Electronics North America Corp.

s/William S. Francos/

by: William S. Francos (Reg. No. 38,456)

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